REMARKS / ARGUMENTS

Reconsideration of the application is requested.

Claims 1-22 remain in the application. Claims 1 and 3 have been amended. Claims 9-22 have been allowed.

In item 2 on pages 2-3 of the above-mentioned Office action, claims 1-2 and 4 have been rejected as being anticipated by Splinter et al. (US Pat. No. 4,303,455) under 35 U.S.C. § 102(b).

In item 5 on pages 3-4 of the above-mentioned Office action, claims 3 and 8 have been rejected as being unpatentable over Splinter et al. in view of Licari ("Coating Materials for Electronic Applications," pp. 31-35, Noyes Publications) under 35 U.S.C. § 103(a); claims 5-7 have been rejected as being unpatentable over Splinter et al. under 35 U.S.C. § 103(a).

The rejections have been noted and claim 1 has been amended in an effort to even more clearly define the invention of the instant application.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

> producing at least one buried region in the substrate with a lower specific resistance than a surrounding region formed by the substrate; and
>
> heating locally the buried region by inducing eddy currents by irradiation with electromagnetic energy.

Claim 1 of the instant application has been amended to specify that a buried region is locally heated by microwave irradiation. Splinter et al., however, describe only the heating of implanted surface region (see column 1, line 27, and Fig. 1). The local heating of a buried region is not described in Splinter et al.

Further, it is stated in column 2, lines 29-32 of Splinter et al. that

> *"The present invention goes beyond such prior art in the use of higher frequencies as well as the specific application of annealing ion implanted surfaces."*

According to the above statement, Splinter et al. consider it as a key feature of their invention that the microwave irradiation is specifically applied for annealing ion implanted surfaces. This is also made explicit in claim 2 of Splinter et al., where the annealing of charged surface states is claimed.

A person skilled in the art learns from Splinter et al. that implanted surface regions can be annealed by microwave irradiation. However, Splinter et al. contain no hint towards the invention of the instant application, namely to heat a buried region by microwave irradiation.

In addition, the heating mechanism of Splinter et al. differs substantially from the heating mechanism of the invention of the instant application. As described in column 2, lines 3-20, of Splinter et al., the main heating mechanism is phonon release due to microwave-lattice coupling. This is also emphasized in claim 4 of Splinter et al. According to column 2, lines 21-24, of Splinter et al., eddy currents will only occur after the ionized impurities have become substantial in the lattice, i.e. after substantial annealing. Also, Splinter et al. only mention that the heat due to eddy currents may aid in the annealing, i.e. the eddy currents are only a minor aspect of the invention of Splinter et al. if any.

In contrast, the invention of the instant application relies heavily on the heat generated by eddy currents as its main heating mechanism (see claim 1). Accordingly, the heating mechanisms of the invention of the instant application and of Splinter et al. differ fundamentally so that a person skilled

in the art would not have arrived at the invention of the instant application when starting out from Splinter et al.

Due to the different nature of heating mechanisms of Splinter et al. and the invention of the instant application and due to the fact that Splinter et al. are specifically focused on implanted surface regions, claim 1 of the instant application is, therefore, believed to be patentable over Splinter et al. and since claims 2-8 are ultimately dependent on claim 1, they are believed to be patentable as well.

It is also noted that the Licari article is not available to be cited against the claims of the instant application. Licari indicates a publication date of 2003. The instant application was files on July 2, 2003, which may predate Licari and is based on a German priority application filled July 2, 2002, which certainly predates Licari.

Applicant acknowledges the Examiner's statement in item 6 on page 3 of the above-mentioned Office action that claims 9-22 are allowed.

In view of the foregoing, reconsideration and allowance of claims 1-8 and an early issuance of a Notice of Allowance to all the claims are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to 37 CFR Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

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